NOTICE OF AMENDMENT

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

May 5, 2000

Mr. Bill Moler,
Director of Engineering
Kinder Morgan, Inc.
340 Van Gordon St
Lakewood, CO 80228

CPF No. 5-2000-1001M

Dear Mr. Moler:

On August 9-12, 1999, representatives from the Western Region, Southern Region, Southwest Region, and Central Region, Office of Pipeline Safety (OPS), pursuant to Chapter 601 of 49 United States Code conducted a Team Inspection of your company's (then KN Energy) Operations and Maintenance Manual at your company's office in Lakewood, CO.

As a result of a review of your operating and maintenance manual, the requirements for which are set forth in Title 49, Code of Federal Regulations, Parts 191 and 192, the following inadequate procedures were noted:

1. **§191.15(b) Where additional related information is obtained after a report is submitted under paragraph (a) of this section, the operator shall make a supplemental report as soon as practicable with a clear reference by date and subject to the original report.**

   There was no reference to a requirement for a Supplemental Report in your company's Operations and Maintenance Manual.

2. **§192.16 (a) This section applies to each operator of a service line who does not maintain the customer's buried piping up to entry of the first building downstream, or, if the customer's buried piping does not enter a building, up to the principal gas utilization equipment or the first fence (or wall) that**

surrounds that equipment. For the purpose of this section, "maintain" means monitor for corrosion according to §192.465 if the customer's buried piping is metallic, survey for leaks according to §192.723, and if an unsafe condition is found, either shut off the flow of gas or advise the customer of the need to repair the unsafe condition.

(b) Each operator shall notify each customer once in writing of the following information:

(1) The operator does not maintain the customer's buried piping.

(2) If the customer's buried piping is not maintained, it may be subject to the potential hazards of corrosion and leakage.

(3) Buried gas piping should be -

(i) Periodically inspected for leaks;

(ii) Periodically inspected for corrosion if the piping is metallic; and

(iii) Repaired if any unsafe condition is discovered.

(4) When excavating near buried gas piping, the piping should be located in advance, and the excavation done by hand.

(5) The operator (if applicable), plumbing contractors, and heating contractors can assist in locating, inspecting, and repairing the customer's buried piping.

(c) Each operator shall notify each customer not later than August 14, 1996 or 90 days after the customer first receives gas at a particular location, whichever is later. However, operators of master meter systems may continuously post a general notice in a prominent location frequented by customers.

(d) Each operator must make the following records available for inspection by the Administrator or a State agency participating under 49 U.S.C. 60105 or 60106:

(1) A copy of the notice currently in use; and

(2) Evidence that notices have been sent to customers within the previous 3 years.

There were no procedures for customer notification as required in §192.16 in your company's Operations and Maintenance Manual.

3. **§192.605(a) Each operator shall include the following in its operating and maintenance plan:**

(a) General. Each operator shall prepare and follow for each pipeline, a manual of written procedures for conducting operations and maintenance activities and for emergency response. For transmission lines, the manual must also include procedures for handling abnormal operations. This manual must be reviewed and updated by the operator at intervals not exceeding 15 months, but at least one each calendar year. This manual must be prepared before operations of a pipeline system commence.

Appropriate parts of the manual must be kept at locations where operations and maintenance activities are conducted.

There were no procedures for the annual review, each calender year but not to exceed15 months, of the Operations and Maintenance Manual in your company's procedures.

4. **§192.605(b)(3) Each operator shall include the following in its operating and maintenance plan:**

> **(b) Maintenance and normal operations. The manual required by paragraph (a) of this section must include procedures for the following, if applicable, to provide safety during maintenance and operations.**
>
> > **(3) Making construction records, maps, and operating history available to appropriate operating personnel.**

There were no procedures that directed or required making construction records, maps, and operating history available to appropriate operating personnel in your company's Operations and Maintenance Manual.

5. **§192.605(b)(8) Each operator shall include the following in its operating and maintenance plan:**

> **(b) Maintenance and normal operations. The manual required by paragraph (a) of this section must include procedures for the following, if applicable, to provide safety during maintenance and operations.**
>
> > **(8) Periodically reviewing the work done by operator personnel to determine the effectiveness and adequacy of the procedures used in normal operation and maintenance and modifying the procedure when deficiencies are found.**

The procedure your company used to address this requirement (found in Operating & Maintenance Procedure 100, p.5) was inadequate because it addresses the evaluation of your personnel's performance rather than to determine the effectiveness and adequacy of the procedures used in normal operation and maintenance by the personnel and then to modify the company's procedures when deficiencies are found.

6. **§192.605(c)(1) Each operator shall include the following in its operating and maintenance plan:**

> **(c) Abnormal operation. For transmission lines, the manual required by paragraph (a) of this section must include procedures**

for the following to provide safety when operating design limits have been exceeded:

(1) Responding to, investigating, and correcting the cause of:

(i) Unintended closure of valves or shutdowns;

(ii) Increase or decrease in pressure or flow rate outside normal operating limits;

(iii) Loss of communications;

(iv) Operation of any safety device; and,

(v) Any other foreseeable malfunction of a component, deviation from normal operation, or personnel error which may result in a hazard to persons or property.

There were no procedures for Abnormal Operations as required by §192.605(c)(1) in your company's Operations and Maintenance Manual.

7. **§192.605(c)(2-4) Each operator shall include the following in its operating and maintenance plan:**

(c) Abnormal operation. For transmission lines, the manual required by paragraph (a) of this section must include procedures for the following to provide safety when operating design limits have been exceeded:

(2) Checking variations from normal operation after abnormal operation has ended at sufficient critical locations in the system to determine continued integrity and safe operation.

(3) Notifying responsible operator personnel when notice of an abnormal operation is received.

(4) Periodically reviewing the response of operator personnel to determine the effectiveness of the procedures controlling abnormal operation and taking corrective action where deficiencies are found.

There were no procedures as required by §192.605(c)(2-4) in your company's Operations and Maintenance Manual.

8. **§192.614(c)(2) The damage prevention program required by paragraph (a) of this section must, at a minimum:**

(2) Provides for notification of the public in the vicinity of the pipeline and actual notification of the persons identified in paragraph (c)(1) of this section of the following as often as needed to make them aware of the damage prevention program:

The procedures in your company's Operations and Maintenance Manual left compliance with this portion of the regulations to the field supervisors. Procedure 232 does not require the notification of the public in the vicinity of the pipeline. Also, procedure 232 does not make it mandatory to notify excavators and the public of the damage prevention program elements that are listed under 192.614(c). The procedures need to provide more specifics for issues as serious as Damage Prevention needs increased direction and oversight.

9. **§192.614(a)(6)(i) The damage prevention program required by paragraph (a) of this section must, at a minimum:**

(6) Provide as follows for inspection of pipelines that an operator has reason to believe could be damaged by excavation activities:

(i) The inspection must be done as frequently as necessary during and after the activities to verify the integrity of the pipeline;

There were no clear procedures directing that inspections be done as frequently as necessary to verify the integrity of the pipeline in your company's Operations and Maintenance Manual.

10. **§192.615(a)(3) Each operator shall establish written procedures to minimize the hazard resulting from a gas pipeline emergency. At a minimum, the procedures must provide for the following:**

(3) Prompt and effective response to a notice of each type of emergency, including the following:

(i) Gas detected inside or near a building.

(ii) Fire located near or directly involving a pipeline facility.

(iii) Explosion occurring near or directly involving a pipeline facility.

(iv) Natural disaster.

There were no procedures in your company's Operations and Maintenance Manual directing prompt and effective response by personnel to the types of emergencies as required by §192.615(a)(3).

11. **§192.615(c) Each operator shall establish and maintain liaison with appropriate fire, police, and other public officials to:**

(1) Learn the responsibility and resources of each government organization that may respond to a gas pipeline emergency;

(2) Acquaint the officials with the operator's ability in responding to a gas pipeline emergency;

(3) Identify the types of gas pipeline emergencies of which the operator notifies the officials; and,

(4) Plan how the operator and officials can engage in mutual assistance to minimize hazards to life or property.

There were no procedures or directives outlining the details that are communicated to the public officials and what your company expects from the public officials and emergency responders in your company's Operations and Maintenance Manual.

12. **§192.703(b) Each segment of pipeline that becomes unsafe must be replaced, repaired, or removed from service.**

There was no company policy or directive addressing this requirement in your company's Operations and Maintenance Manual.

13. **§192.705(a) Each operator shall have a patrol program to observe surface conditions on and adjacent to the transmission line right-of-way for indications of leaks, construction activity, and other factors affecting safety and operation.**

There were no observation criteria for the pilot listed in the O & M Manual. Recognition of land slide areas was not mentioned, and the aerial patrolling specifications do not include dead vegetation or blowing gas even though they are generally covered under Procedure 215, p.1. More details need to be included.

14. **§192.715 Each weld that is unacceptable under §192.241(c) must be repaired as follows:**

(a) If it is feasible to take the segment of transmission line out of service, the weld must be repaired in accordance with the applicable requirements of §192.245.

Procedure 406, p.2 states, "Remove cracks occurring in a weld". This statement tends to be contradicted by the statement in Procedure 213, p.5, "Do not repair cracks unless authorized by the Engineering Department". A clear policy statement is needed.

15. **§192.715(b)(2) A weld may be repaired in accordance with §192.245 while the segment of transmission line is in service if:**

(2) The pressure in the segment is reduced so that it does not produce a stress that is more than 20 percent of the SMYS of the pipe;

There were no procedures that addressed reducing line pressure to below 20% SMYS while welding on an in-service transmission pipelines in your company's Operations and Maintenance Manual.

16. **§192.715(b)(3) A weld may be repaired in accordance with §192.245 while the segment of transmission line is in service if:**
(3) Grinding of the defective area can be limited so that at least 1/8-inch (3.2 millimeters) thickness in the pipe weld remains.

There were no procedures addressing the 1/8-inch thickness retention requirement when grinding out a defective area in your company's Operations and Maintenance Manual.

17. **§192.715(c) A defective weld which cannot be repaired in accordance with paragraph (a) or (b) of this section must be repaired by installing a full encirclement welded split sleeve of appropriate design.**

This procedure, or another equivalent repair procedure was not found in your company's Operations and Maintenance Manual.

18. **§192.731 (a) Except for rupture discs, each pressure relieving device in a compressor station must be inspected and tested in accordance with §192.739 and §192.743, and must be operated periodically to determine that it opens at the correct set pressure.**
(b) Any defective or inadequate equipment found must be promptly repaired or replaced.
(c) Each remote control shutdown device must be inspected and tested at intervals not exceeding 15 months, but at least once each calendar year, to determine that it functions properly.

Although your company's Operations and Maintenance Manual did direct the annual remote control blowdown of compressor stations, the manual did not specify that each sensor and each activation switch/panel must also be tested as per §192.731(c). Repair or replacement of defective or inadequate equipment was-like wise not addressed.

19. **§192.735 (a) Flammable or combustible materials in quantities beyond those required for everyday use, or other than those normally used in compressor buildings, must be stored a safe distance from the compressor building.**
(b) Aboveground oil or gasoline storage tanks must be protected in accordance with National Fire Protection Association Standard No. 30.

Your company's Operations and Maintenance Manual did not contain procedures directing that flammable and combustible materials be stored a safe distance from compressor buildings. Also, there were no procedures directing that tanks be protected according to NFPA #30.

20. **§192.225 (a) Welding must be performed by a qualified welder in accordance with welding procedures qualified to produce welds meeting the requirements of this subpart. The quality of the test welds used to qualify the procedures shall be determined by destructive testing.**
(b) Each welding procedure must be recorded in detail, including the results of the qualifying tests. This record must be retained and followed whenever the procedure is used.

Your company's Operations and Maintenance Manual did not contain the requirements outlined in §192.225. It was particularly noted that there were no requirements for destructive testing of welds used to qualify welding procedures.

21. **§192.229(a) No welder whose qualification is based on nondestructive testing may weld compressor station pipe and components.**

There was no requirement in your company's Operations and Maintenance Manual requiring welders who weld on compressor station pipe and components to be qualified by destructive testing.

22. **§192.229(b) No welder may weld with a particular welding process unless, within the preceding 6 calendar months, he has engaged in welding with that process.**

Your company's Operations and Maintenance Manual did not include welder qualifications/restrictions that actually spelled out the six month criteria as prescribed in §192.229(b).

23. **§192.229(c) A welder qualified under §192.227(a) --**
(1) May not weld on pipe to be operated at a pressure that produces a hoop stress of 20 percent or more of SMYS unless within the preceding 6 calendar months the welder has had one weld tested and found acceptable under section 3 or 6 of API Standard 1104, except that a welder qualified under an earlier edition previously listed in Appendix A of this part may weld but may not requalify under that earlier edition; and

(2) May not weld on pipe to be operated at a pressure that produces a hoop stress of less than 20 percent of SMYS unless the welder is tested in accordance with paragraph (c)(1) of this section or requalifies under paragraph (d)(1) or (d)(2) of this section.

Your company's Operations and Maintenance Manual, in Procedure 401, p.3, allows a variance to the six calendar month requirement of "plus or minus two weeks". This variance is not allowed in §192.229(c)(1).

24. **§192.233 (a) A miter joint on steel pipe to be operated at a pressure that produces a hoop stress of 30 percent or more of SMYS may not deflect the pipe more than 3°.**
(b) A miter joint on steel pipe to be operated at a pressure that produces a hoop stress of less than 30 percent, but more than 10 percent of SMYS may not deflect the pipe more than 12 1/2° and must be a distance equal to one pipe diameter or more away from any other miter joint, as measured from the crotch of each joint.
(c) A miter joint on steel pipe to be operated at a pressure that produces a hoop stress of 10 percent or less of SMYS may not deflect the pipe more than 90°.

There was no reference to §192.233 criteria in your company's Operations and Maintenance Manual.

25. **§192.235 Before beginning any welding, the welding surfaces must be clean and free of any material that may be detrimental to the weld, and the pipe or component must be aligned to provide the most favorable condition for depositing the root bead. This alignment must be preserved while the root bead is being deposited.**

There was no reference to §192.235 criteria in your company's Operations and Maintenance Manual.

26. **§192.616 Each operator shall establish a continuing educational program to enable customers, the public, appropriate government organizations, and persons engaged in excavation related activities to recognize a gas pipeline emergency for the purpose of reporting it to the operator or the appropriate public officials. The program and the media used must be as comprehensive as necessary to reach all areas in which the operator transports gas.**

The strategy is inadequate for your company's Public Education Procedures. Operating and Maintenance Procedure 232, under the Educational Program procedures in your company's Operations and Maintenance Manual implies that newspaper advertisements **could be** the only public education tool required to be used in educating the public on how to recognize and respond to a pipeline emergency. OPS finds this procedure to be inadequate in that some persons located in the pipeline area, such as land owners, tenants, renters, office workers, school personnel, etc., for whatever reasons may not read an annually published newspaper advertisement. The content of the educational program procedures do not provide the details of how to recognize a gas pipeline emergency, such as recognition of a hissing or shrill sound, unusual blowing dust or dirt, etc. The procedures need to provide more specifics for issues directed to Public Safety and its Public Education aspects need more direction.

27. **§192.717(b) Submerged offshore pipelines and submerged pipelines in inland navigable waters may be repaired by mechanically applying a full encirclement split sleeve of appropriate design over the leak.**

Your company's Operations and Maintenance Manual did not address repairs to pipeline covered in §192.717(b) by full encirclement split sleeves or by other approved methods.

As provided in CFR §190.237, this notice serves as your notification that this office considers your procedures/plans inadequate. Under §190.237, you have a right to submit written comments or request an informal hearing. You must submit written comments or a request for a hearing within 30 days after receipt of this notice. After reviewing the record, the Associate Administrator for Pipeline Safety will determine whether your plans are adequate. The criteria used in making this determination are outlined in §190.237. If you do not wish to contest this notice, please provide your revised procedures within 45 days of receipt of this notice (see enclosure to this notice).

Should you have any questions regarding this notice of amendment please make reference to **CPF No. 5-2000-1001M**.

Sincerely,

Chris Hoidal
Director, Western Region